

Claims:

- 1 1. An isolated nucleic acid comprising the sequence depicted in Figure 1,
2 SEQ ID NO:1.
- 1 2. A nucleic acid as defined in claim 1, wherein said nucleic acid is DNA.
- 1 3. A nucleic acid as defined in claim 1, wherein said nucleic acid is RNA.
- 1 4. A recombinant DNA vector comprising a sequence as defined in claim
2 1.
- 1 5. A recombinant DNA vector comprising a sequence as defined in claim 1
2 operably linked to a transcription regulatory element.
- 1 6. A cell comprising a DNA vector as defined in claim 5, wherein said cell
2 is selected from the group consisting of bacterial, fungal, plant, insect, and mammalian cells.
- 1 7. A method for producing a polypeptide, said method comprising incubating
2 a cell as defined in claim 6 under conditions that permit expression of one or more
3 polypeptides encoded by said nucleic acid.
- 1 8. A method as defined in claim 7, further comprising:

2 (a) harvesting said incubated cells to produce a cell fraction and a medium
3 fraction; and

4 (b) recovering said one or more polypeptides from said cell fraction, said
5 medium fraction, or both.

1 9. A purified isolated nucleic acid encoding the amino acid sequence depicted
2 in Figure 1 SEQ ID NO:2.

1 10. A nucleic acid as defined in claim 9, wherein said nucleic acid is DNA.

1 11. A nucleic acid as defined in claim 9, wherein said nucleic acid is RNA.

1 12. A recombinant DNA vector comprising a sequence as defined in claim 9.

1 13. A recombinant DNA vector comprising a sequence as defined in claim 9
2 operably linked to a transcription regulatory element.

1 14. A cell comprising a DNA vector as defined in claim 13, wherein said cell
2 is selected from the group consisting of bacterial, fungal, plant, insect, and mammalian cells.

1 15. A method for producing a polypeptide, said method comprising incubating
2 a cell as defined in claim 14 under conditions that permit expression of one or more
3 polypeptides encoded by said nucleic acid.

1 16. A method as defined in claim 15, further comprising:

2 (a) harvesting said incubated cells to produce a cell fraction and a medium
3 fraction; and

4 (b) recovering said one or more polypeptides from said cell fraction, said
5 medium fraction, or both.

6 17. A purified polypeptide comprising a sequence selected from the group
7 consisting of the sequence depicted in Figure 1 SEQ ID NO:2 and function-conservative
8 variants thereof.

9 18. A purified polypeptide comprising amino acids 1-45 of the sequence depicted
10 in Figure 1 SEQ ID NO:2.

11 19. A method for identifying hER β -interactive compounds, said method
12 comprising:

13 (a) contacting purified hER β with a labelled ligand in the presence of test
14 compounds, to form test reactions, and in the absence of test compounds, to form control
15 reactions;

6 (b) incubating said test and control reactions under appropriate conditions
7 to achieve equilibrium binding of said labelled ligand to hER β ;

8 (c) determining the level of binding of said labelled ligand to hER β in said
9 test and control cultures; and

10 (d) identifying as a hER β -interactive compound any compound that reduces
11 the binding of said labelled ligand to hER β .

1 20. A method as defined in claim 19, wherein said ligand is 17- β estradiol.

2 21. A method as defined in claim 19, wherein said hER β -interactive
3 compound is an agonist.

4 22. A method as defined in claim 19, wherein said hER β -interactive
5 compound is an antagonist.

6 23. An antibody that specifically recognizes hER β .